

Interview stage Deliverables

Participants / User:

In this stage, we had six participants for an interview. We are going to mention the characteristics of each participant in this section. In addition, we hired the participants from our friends who are NC State University students. We tried to have a diverse enough sample to perform the interview and achieve the best result.

Characteristics:

Participants	Gender	Age	Gaming experience	Board game experience	Occupation
Interviewee #1	Male	20-30	3	3	PhD student
Interviewee #2	Male	20-30	2	3	Master's student
Interviewee #3	Female	20-30	1	2	Master's student
Interviewee #4	Male	20-30	5	4	Master's student
Interviewee #5	Male	20-30	3	4	Master's student
Interviewee #6	Male	20-30	4	2	Master's student

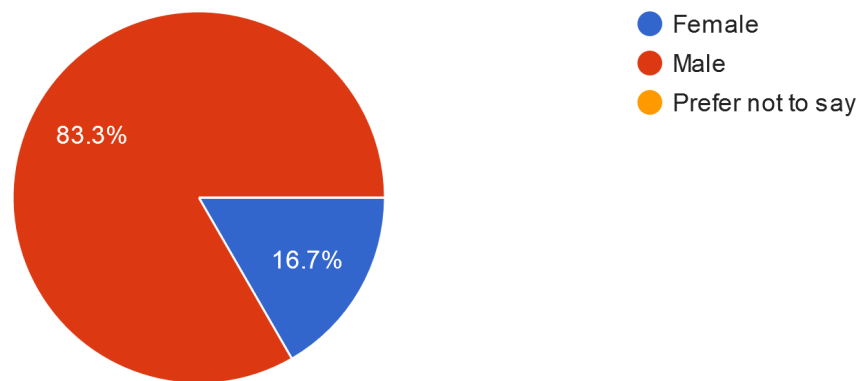
Wanted characteristics	Neutral characteristics	Unwanted characteristics
● High board game experience ● Experienced AR/VR products before	● Age similarity	● Similar occupation ● Unbalanced gender ratio ● Lack of enough gaming experience

The target group of the product is young adults (e.g. users between 20 to 30). Therefore, the fact that most of the participants are in this range is quite helpful. However, considering different groups are going to use this product with different age range, our data is biased and therefore it is unwanted. Finally, we can consider this as a neutral characteristic.

In addition, having high experience with board games in the participants is very helpful since the target population of this platform is indeed the board game players. Demographics for the results are provided down below.

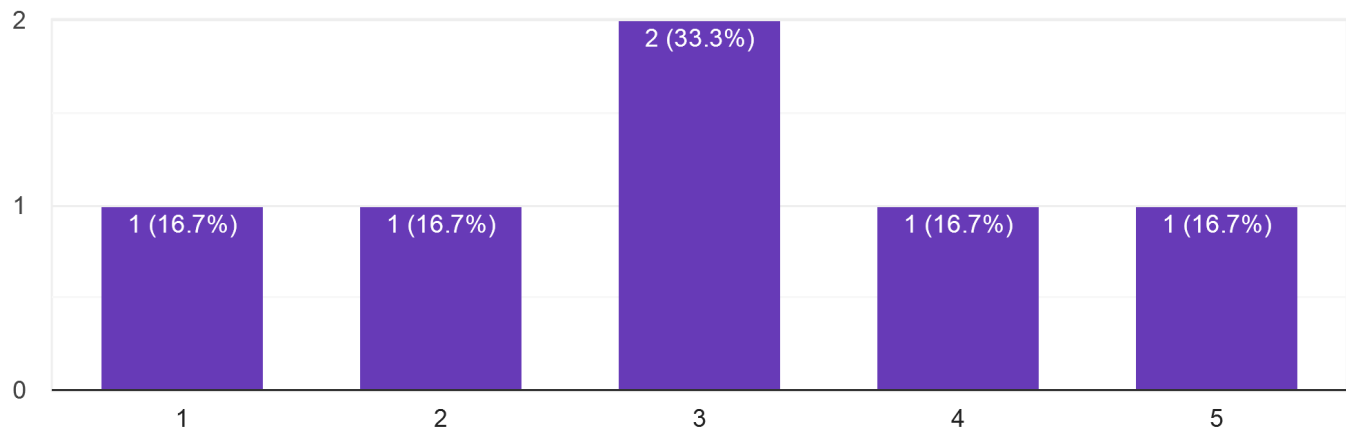
Gender

6 responses



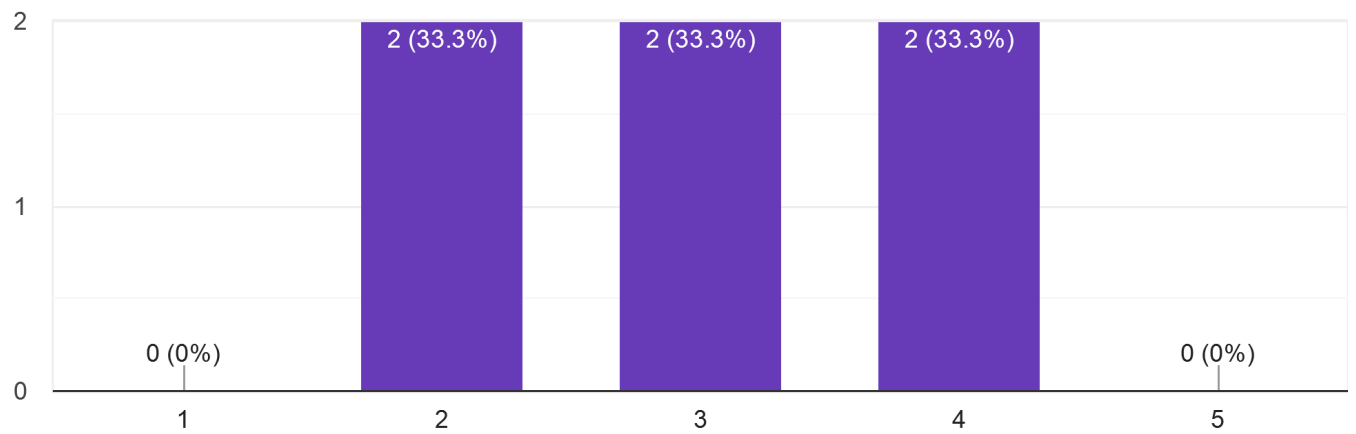
How often do you play games?

6 responses



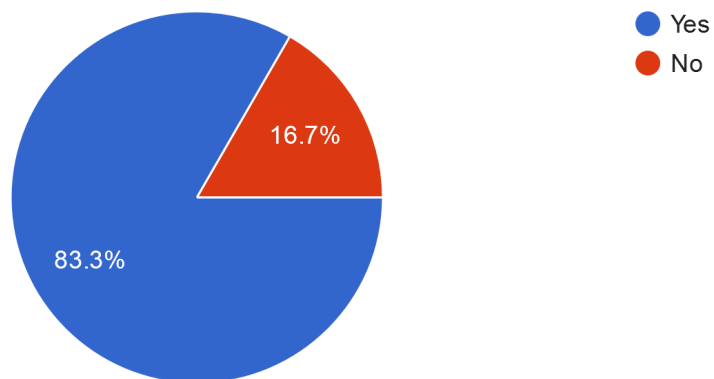
How often do you play board games?

6 responses



Have you experienced AR/VR products before?

6 responses

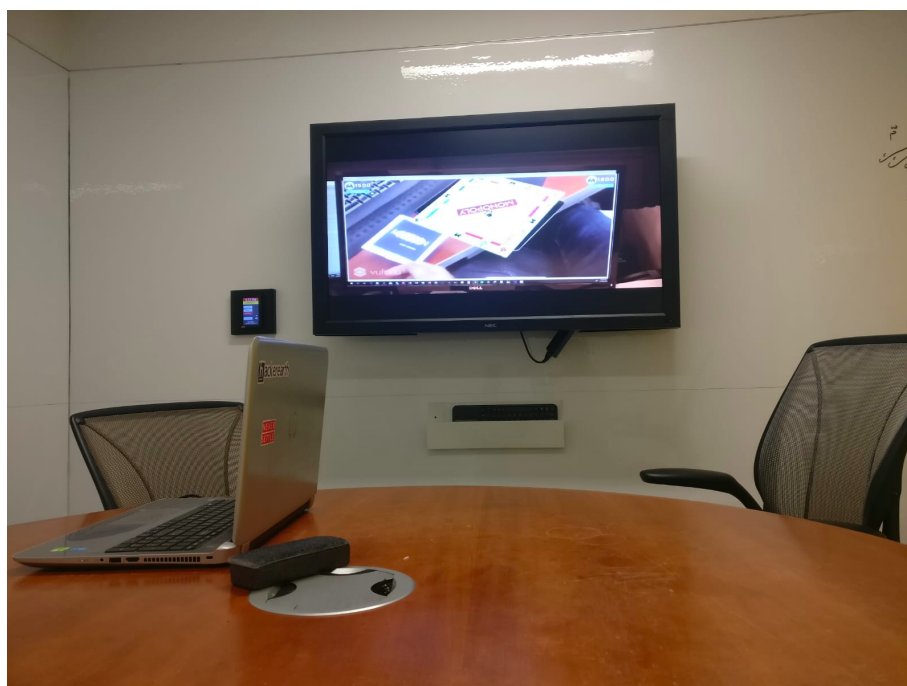


We set up interviews in the Library. We invited a few of our friends to come and play with our prototype and asked them questions. They were asked to be seated in the interview room accompanied by a team member who took the interview. The rest of the team members were seated in another room listening to the live streaming of the interview.

Team room



Interview room



Tools used:

- Google docs and sheets
- Unity (Prototype)
- Laptop for live streaming the interview and taking notes

Interviews

For the survey, each of the team members came up with several questions in five different categories. The categories are listed below:

1. General background [Age and gender only in the survey]
2. Board game background
3. AR/VR board game background
4. Prototype evaluation (customizable controller)
5. Preferences and suggestions about the platform

After brainstorming, the group members came up with the following questions.

- Have you used/experienced VR/AR products before?
- Have you played any AR/VR board games before?
- Have you played board games before? Which ones?
- Which one was your favorite and why?
- If you see such a product in the market, would you buy it? What price are you willing to pay for such a product?
- Do you think that this is better than completely virtual or physical board games?
- Do you think having this customizable controller makes your experience better? Why or why not?
- What additional features do you think are needed in this product?
- Would you prefer a headset or a mobile phone for such games?
- Is there any particular board game that you want to experience in AR/VR? What aspects of that particular game make it interesting in the virtual world?
- What is your gender?
- How old are you?
- How often do play games? Frequently/Rarely/Never Played
- How often do you board games? Frequently/Rarely/Never Played
- Have you experienced AR products before?
- Have you played AR games before?
- Are there any board games you think would be improved by AR?

- Would you prefer completely virtual environments for gaming or a mix of physical and virtual components?
- What's the biggest problem with AR?
- Would you prefer headsets or mobile phones for AR gaming?

In the next step, the group members selected the best questions to use in the interview and survey. The selected questions are listed down below:

1. How often do you play games?
2. How often do you play board games?
3. Have you experienced AR/VR products before?
4. Have you played AR/VR board games before?
5. Are there any type of board games that you think can be improved by AR?
6. Would you prefer completely virtual, completely physical environments for gaming or a mix of physical and virtual components? Why?
7. What's the biggest problem with AR/VR board games?
8. Would you prefer headsets or mobile phones for AR gaming?
9. Do you think using a customizable controller can impact your experience in AR/VR board games?
10. What aspects of games would you want to control with the customizable controller?

After all, a google form was created in order to collect responses from the participants. The responses are reported in the next section of this report.

Interview Transcript

- **Welcome**

Hi, my name is ***. *handshake* (*Ask for the person's name if he/she doesn't do that themselves*).

Introduce yourself

Thank you for taking out the time to help us evaluate the prototype for our app! :)

- **Introduction (for non-UX student)**

We have been working on a User Experience project with Nvidia. Our aim is to improve aspects of AR Board Games. Out of the many possible solutions, we have chosen 2 approaches.

Introduce Customizable controller and Mixed Reality.

Show sketches and storyboards to help them understand the problem and our approach and its applicability

- **Introduction to the game and AR if they have no previous experience**

Go through the Survey and introduce them about our AR equipment.

After discussions and the prototype experience, I would also ask you to fill out a short survey. Please hold this cardboard piece and I'll let you know when to begin.

- **Explain the experimental setup**

The procedure is very simple! We want you to evaluate our prototype by your experience.

We will provide you with the prototype implemented in Unity. And now it is time for you to just enjoy!

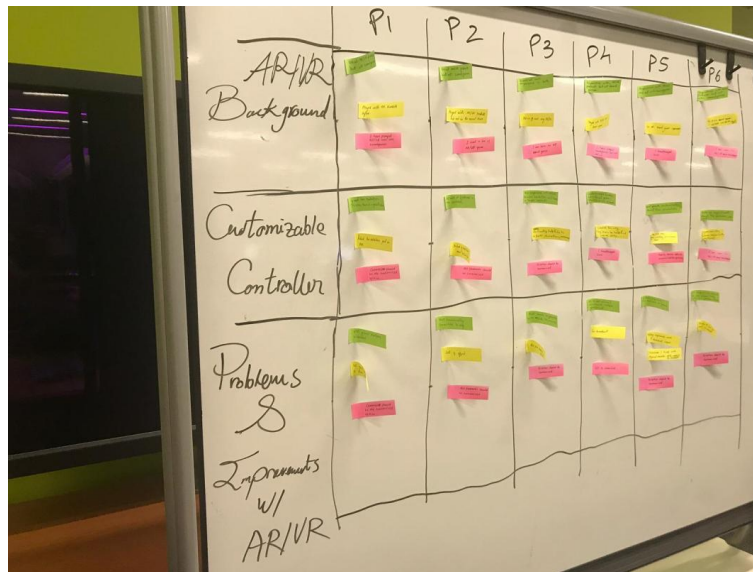
- **Conduct the experiment (start the AR game)**

- Provide the prototype
- Explain how to play the game
- Remind them to fill out the survey

- **Thank the participants for their time for filling the survey**

Observation Grid:

Team members noted down their ideas from the live interview. Ideas were noted on sticky notes.



	P1	P2	P3	P4	P5	P6
Background	Used AR/VR products but not AR board games Played with AR headsets before	Used AR/VR products but not AR board games Experienced VR products before but not recently I used many AR/VR games, not specifically board games though	Does not have experience in both Never used AR/VR Very new to AR/VR	Experience with AR/VR products but not AR/VRboard games Played with AR/VR but not boards I have played board games but not AR/VR	Experience with AR/VR products but not AR/VRboard games No AR board games experience I haven't played both	Experience with AR/VR products but not AR/VRboard games Has AR/VR experience but not board games in AR Didn't come across any VR board games in market
Customizable Controller	Good for rotation. Thinks this is a great idea! Like the rotation part Controller should be customized even more	Wants all features in the controller. Instead of mixed reality, purely AR board games All features should be customized	No experience with AR/VR, still thinks controller will have a huge impact Definitely helpful in all parts, rotation, movement Rotation should be customized	Customizable for each individual game! Selecting pieces on board I believe the only thing it can help with is the dices Selection was a new idea and a good one	Not much enthusiastic about the controller Don't know about customizable options Very good idea! Can zooming with the game controller can be helpful	Nothing significant about the controller was said Didn't have much to say about the controller Controller doesn't affect the gameplay much.
Preferences and Improvements	VR gives motion sickness Can be immersive and cause problems like motion sickness	Not financially feasible Cost and Effort Should be more affordable	Not much experience, no comments Less streamlined Not so confident because if less experience	AR/VR is not always convenient, mobile preferred Less streamlined Not so immersive	Glitches, not desirable for gamers Experience is glitchy and technical issues Smooth	It may be not be convenient always. Bulky size is a problem. Headsets are more Immersive, but not portable

					experience still hasn't been achieved	Mobile phones may be better.
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Results

The results indicate that this platform can help improve <https://docs.google.com/document/d/1Y69CplfGGqBzf2lQ74OTcSTzV5MIT0n0k4mP58mhmVE/edit> user experience in playing AR/VR board games. Some of the patterns that we noticed in the grid include but are not limited to:

- Hardware and cost contribute a lot to the user's willingness to buy/use AR/VR applications.
- Since most of the interviewees had some past experience with AR/VR, there would be a some past-experience bias which probably did not result in an unbiased opinion of the prototype.
- Majority of the interviewees feel that the prototype should have as many customizations as possible.
- All of them think that is a fascinating or innovative idea.

Future scope of this project includes:

- Creating fully customizable controllers.
- Ability to add abstract objects as controllers
- Mixed reality game sets
- Adding more features to the controller.
- Reducing hardware requirements of the controller.